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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/850,383

05/07/2001

Brenda Lynn Dietrich

YOR920010417US1

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06/12/2008

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC

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SUITE 200

VIENNA, VA 22182-3817

EXAMINER

CHENCINSKI, SIEGFRIED E

ART UNIT

PAPER NUMBER

3691

MAIL DATE

DELIVERY MODE

06/12/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/850,383	<b>Applicant(s)</b> DIETRICH, BRENDA LYNN	
	<b>Examiner</b> SIEGFRIED E. CHENCINSKI	<b>Art Unit</b> 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 & 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on March 31, 2008 has been entered.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-16 and 19-21 are rejected under 35 U.S.C. 101** because the claimed invention is directed to non-statutory subject matter. Independent claims 1, 13 14 and 20 are rejected because they are directed to non-statutory subject matter. Dependent claims 2-12, 16, 19 and 21 are rejected because they depend on non-statutory subject matter. The Board of Patent Appeals and Interferences opined as follows in affirming the examiner's final rejection of this application on January 31, 2008, as follows: "We enter a new ground of rejection under 35 U.S.C. § 103 of claims 1-12 and 14-19 in light of the recent decision in *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007). The claimed process is a computer-implemented method for facilitating an auction. But for the mention of a computer in the preamble of the claim, the steps set forth in the claims would, absent the presence of a computer, recite wholly mental steps. *Comiskey* established that "the application of human intelligence to the solution of practical problems is not in and of itself patentable." *Id.* at 1379.

The Supreme Court has reviewed process patents reciting algorithms or abstract concepts in claims directed to industrial processes. In that context, the Supreme Court has held that a claim reciting an algorithm or abstract idea can state statutory subject matter only if, as employed in the process, it is embodied in, operates on, transforms, or otherwise involves another class of statutory subject matter, i.e., a machine, manufacture, or composition of matter. 35 U.S.C. § 101.

*Id.* at 1376. The instant claims are arguably directed to statutory subject matter because the steps are embodied in another class of statutory subject matter, i.e., a computer. "When an unpatentable mental process is combined with a machine, the combination may produce patentable subject matter ...." *Id.* at 1379. However, "[t]he routine addition of modern electronics to an otherwise unpatentable invention typically creates a prima facie case of obviousness." *Id.* at 1380". (BPAI, Ex parte Brenda Lynn Dietrich, January 31, 2008, p. 24, l. 6 – p. 25, l.2). Independent claim 20 is similarly directed to non-statutory subject matter in the same manner as independent claims 1, 13 and 14.

Appellant can make the claims statutory by adding a computer processor, a system and a computer memory to the body of the claim limitations if such additions are supported by the disclosure.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**3. Claims 1, 13, 14 & 20 are rejected under 35 U.S.C. 112, second paragraph,** as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The terms "column generation formulation", "column generation technique", "the meaning of the claim terms "characterizes" and "based on" that depend on the meaning of the term "constraint," "

“lack clear meaning to the ordinary artisan and are thus insolubly ambiguous” (BPAI Decision on Appeal re. Application 09/850,383, January 31, 2008, p. 25, ll. 3-19). See the entire BPAI opinion regarding a detailed presentation of these ambiguities based on Applicant's arguments in the Appeal Brief versus the examiner's interpretation of Applicant's claimed terminology in light of the recent decision in *Halliburton Energy Services, Inc. v. M-ILLC*, 2007-1149, decided January 25, 2008 (Fed. Cir. 2008).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**4. Claims 1, 2, 6, 7, 11, 12 and 13 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Ausubel (US Patent 5,905,975).

**Re. Claims 1**, Ausubel discloses a computer implemented method for an auction comprising the steps of:

- (1) establishing an auction system (Abstract, ll. 1-2; Col. 1, ll. 61-65); and
- (2) receiving at least one constraint specified by a participant in the auction wherein the constraint characterizes combinations of items desired by the participant within the auction system (Col. 2, ll. 39-50; Col. 29, ll. 4-14).

Ausubel does not explicitly disclose generating a proposal based on the constraints specified by the participant using a column generation formulation, said proposal comprising a set of bids from the participant that satisfies all of the constraints specified by the participant. However, Ausubel discloses the auctioneer accepts and considers proposals by way of the bids submitted by system user participants. When accepting a participant's bid as workable in the auction process, Ausubel is generating a proposal which satisfies the participant's bid constraints. It is obvious that when any aspect of a

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participant's bid constraints are unacceptable a proposal will not be generated against that bid. See the rejection of claim 13 regarding "column generation formulation". Further, Ausubel does not explicitly disclose determining a winner in the auction, based on the above proposal. As such, Ausubel does not use the term\_ "winner(s)" in his teaching. However, Ausubel does disclose transactions which result from the auctions taught by him. An ordinary practitioner of the art at the time of Applicant's invention would have understood that both parties to an auction transaction are winners in the commonly understood meaning of any transaction which results from an auction, since both parties have to be satisfied that they are each better off by entering into the transaction versus not entering into the transaction. This makes each one a winner in the common understanding of the matter. On the other hand, at least one of the two parties to a transaction would not participate in the consummation of a transaction if they thought that a proposed transaction would make them a "loser" (i.e. a non winner), which would be the case if they viewed the offered transaction to be not to their benefit as they define the benefit. Thus, no transaction would occur and thus no winner would be possible if there is no transaction. Therefore, it would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention to have combined the art of Ausubel with the common understanding about transactions and particularly about transactions resulting from an auction process, motivated by a desire to offer and implement improved auction methods (Ausubel, Col. 1, ll. 15-16).

**Re. Claim 2**, Ausubel discloses a method wherein the auction system is elected from a group consisting of an open cry auction, an ascending bid auction, and a descending bid auction (Col. 1, ll. 21-22, 61-65).

**Re. Claim 6**, Ausubel discloses a method enabling the auction system so that it is responsive to constraints selected from the group consisting of a maximum quantity constraint, a minimum quantity constraint, a precedence constraint, and a general linear constraint (Col. 2, ll. 39-40; Col. 6, ll. 56-58).

**Re. Claim 7**, Ausubel discloses a method comprising enabling the auction system so that it is responsive to seller constraints (Ausubel's method has inherent seller constraints without which the auction could not function. These

constraints are established in the auctioneer's intelligent system for providing auction information to bidders, and then for evaluating bids – Abstract.).

**Re. Claim 11**, Ausubel discloses a method of formulating a winner determination problem with the constraint specified by the participant as an integer problem (Please refer to the rejection of claim 1 regarding winner determination and constraints. Further, Audubel teaches the use formulation and processing of an auction process through the use of an integer approach (Fig's 3D-12B)).

**Re. Claim 12**, it would have been obvious to an ordinary practitioner that Ausubel discloses a method of applying the integer program for determining at least one winner (Col. 1, l. 61 – Col. 5, l. 40).

**Re. Claim 13**, Ausubel discloses a program medium executable in a computer system for facilitating an auction (Col. 6, ll. 15-49), the program medium comprising machine-readable instructions to pause the computer system to execute steps for:

- (1) establishing an auction system (Abstract, ll. 1-2; Col. 1, ll. 61-65); and
- (2) enabling the auction system so that it is responsive to constraints specified by or on behalf of a participant in the auction, wherein the constraints characterize combinations of items desired by the participant within the auction system (Please see the rejection of claim 1).

Audubel suggests generating a proposal, based on the constraints specified by the participant, using a column generation formulation (Fig. 3D displays bid data in a column. Making use, analyzing and displaying data in columns and matrices has been a basic display for a long time. It is also a technique used in mathematical and computer software analytical and parsing techniques).

Ausubel does not explicitly disclose "said proposal comprising a set of bids from the participant that satisfies all of the constraints specified by the participant". However, Ausubel discloses the auctioneer accepts and considers proposals by way of the bids submitted by system user participants. When accepting a participant's bid as workable in the auction process, Ausubel is generating a proposal which satisfies the participant's bid constraints. It is obvious that when any aspect of a participant's bid constraints are unacceptable a proposal will not be generated against that bid. Ausubel also discloses

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formulating a winner determination problem based on the above proposal. It is implicit that Ausubel's computer automated system is determining winners using an integer program which has a problem formulation routine which then solves the program. Therefore, it would have been obvious to the ordinary practitioner of the art at the time of Applicant's invention to have combined the art of Audubel to for the purpose of executing a program in a computer system for operating an auction with machine readable instructions and making use of column generation techniques, motivated by a desire to offer and implement improved auction methods (Ausubel, Col. 1, ll. 15-16).

**Re. Claim 14**, Ausubel discloses or suggests a computer implemented method for facilitating an auction comprising:

receiving constraints specified by a participant in the auction, wherein the constraints characterize combinations of items desired by the participant within an auction system (see the rejection of claim 1); and

formulating a winner determination problem, with the constraints specified by the participant, as an integer problem (see the rejections of claims 1 and 11).

**Re. Claim 15**, Ausubel discloses method comprising determining winners from among participants in the auction by applying the integer program (See the rejection of claim 11).

**Re. Claim 16**, Ausubel discloses a method specifying combinatorial bids by interpreting the constraints. Applicant defines combinatorial bidding as a "computer implemented system for a combinatorial auction. One or more bidders participate in the auction. Two or more items are being auctioned." (p. 14, ll. 13-14). It would have been obvious to an ordinary practitioner at the time of Applicant's invention that Audubel teaches such an auction, since Audubel teaches or suggests two or more bidders and two or more items (See the rejection of claim 1).

**Re. Claim 19**, Ausubel discloses a method wherein the constraints are represented by linear relationships between indicator variables on bids from the participant (See the rejection of claim 6).



**Re. Claim 20**, Ausubel discloses a method of conducting an auction in an auction system in which plural items are offered for auction by a seller, and plural bidders place bids on said plural items, said method comprising:  
receiving from said plural bidders, plural bids on said plural items, said plural bidders specifying a set of constraints associated with said plural bids;  
identifying for a bidder in said plural bidders, a proposal which comprises a set a bids from said bidder which satisfies all of said constraints specified by said bidder, and  
formulating an integer program based on said proposal to determine a winning combination of bids in said plural bids, and solving said integer program using a column generation technique. (See the rejection of claims 1 and 13. Further, Ausubel discloses plural bidders (Col. 1, l. 62 - participants) and plural items being auctioned (col. 2, l. 39-41 – “how many of object(s)”). Therefore, it would have been obvious to an ordinary practitioner of the art at the time of Applicant’s invention to have combined the art of Ausubel with the common understanding about transactions and particularly about transactions resulting from an auction process involving plural bidders and plural items being auctioned, motivated by a desire to offer and implement improved auction methods (Ausubel, Col. 1, ll. 15-16).

**Re. Claim 21**, Ausubel discloses a method comprising generating a user interface on a display device, said user interface comprising a display screen displaying said plural constraints (Fig. 1-21. The display screen is implicit since the great majority of computer system interfaces in use at the time of applicant’s invention involved display screens).

**5. Claims 3, 4 and 5 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Ausubel as applied to claim 1 above, and further in view of McAfee et al. (US Patent 6,718,312 B1, hereafter McAfee).

**Re. Claim 3**, Ausubel does not explicitly disclose a method wherein the constraints characterize combinations of bids from the participant for the desired items within the auction system. However, Ausubel does in fact teach and suggest the use of constraints and the combination of items desired by participants by participants in an auction process (see the rejection of claim 1). Further, McAfee discloses a method wherein the

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constraints characterize combinations of bids from the participant for the desired items within the auction system (Abstract, l. 8; Col. 1, l. 9; Col. 5, ll. 19-20; Col. 9, ll. 66-67). It would have been obvious to an ordinary practitioner at the time of Applicant's invention to have combined the art of Ausubel with that of McAfee in order to be responsive to constraints that characterize combinations of items, motivated by the desire to offer combinatorial auction methods and systems that eliminate associated bidding problems (McAfee, Col. 9, ll. 59-63).

**Re. Claim 4**, Ausubel does not explicitly disclose a method enabling the auction system so that it is responsive to a budget constraint. However, McAfee discloses a method which comprises enabling the auction system so that it is responsive to a budget constraint (Col. 6, ll. 1-3, 58-62. McAfee's method teaches a method responsive to a budget constraint). It would have been obvious to an ordinary practitioner at the time of Applicant's invention to have combined the art of Ausubel with that of McAfee to be responsive to budget constraints, motivated by the desire to offer combinatorial auction methods and systems that eliminate associated bidding problems (McAfee, Col. 9, ll. 59-63).

**Re. Claim 5**, Ausubel does not explicitly disclose a method wherein the budget constraint is specified by the participant. However, McAfee suggests a method wherein the budget constraint is specified by or on behalf of the participants, which can be either the seller or buyer/bidder, or both. McAfee suggests that both parties are likely budget constrained (Col. 6, ll. 1-3, 58-62. McAfee's method teaches a method responsive to a budget constraint, which in turn would have made it obvious to an ordinary practitioner at the time of Applicant's invention to consider various ways of including budget constraints into the auction process from both seller and buyer/bidder points of view). Therefore, it would have been obvious to an ordinary practitioner at the time of Applicant's invention to have combined the art of Ausubel with that of McAfee to be responsive to budget constraints specified by or on behalf of a bidder, motivated by the desire to offer combinatorial auction methods and systems that eliminate associated bidding problems (McAfee, Col. 9, ll. 59-63).

**6. Claims 8-10 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Ausubel in view of Macready et al. (US PreGrant Publication 2002/0016759, hereafter Macready).

**Re. Claim 8**, Ausubel does not explicitly disclose a method wherein the seller constraints specify a minimum value for a combination of items. However, Macready discloses a method wherein the seller constraints specify a wide range of parameter possibilities (Page 6, [0077]; [0108]-II. 1-2; [0110]). It would have been obvious to the ordinary practitioner at the time of applicant's invention that these possibilities suggest the imposition of a constraint specifying a minimum value. Such a value would be based on the participant's assessment that he would be worse off to engage in a transaction below such a minimum value). Hence it would have been obvious to an ordinary practitioner at the time of Applicant's invention to have combined the art of Ausubel with that of Macready to be responsive to seller constraints such as a minimum value for a combination of items, motivated by the desire to offer flexibility to all trading partners to locate win-win opportunities for all parties if they exist (Macready, page 2, [0012]-II. 7-9).

**Re. Claim 9**, Ausubel does not explicitly disclose a method wherein of enabling the seller constraints specify a minimum value for a combination of a minimum number of items to be sold. See the rejection of claim 8. The ordinary practitioner would have seen it as obvious that minimum values could easily be involved in auctions which involve multiple items and in which the seller(s)'s constraints permit or perhaps even require bidding on a combination of items. See the rejection of claim 10 for an illustration of such circumstances. The selling participant would may have an interest in establishing a minimum value in a combination of items in the case of a car parts auction. It would have been obvious to an ordinary practitioner at the time of Applicant's invention to have combined the art of Ausubel with that of Macready to be responsive to seller constraints such as a minimum value for a combination of a minimum number of items to be sold, motivated by the desire to offer flexibility to all trading partners to locate win-win opportunities for all parties if they exist (Macready, page 2, [0012]-II. 7-9).

**Re. Claim 10**, Ausubel does not explicitly disclose a method wherein the seller constraints specify a minimum value for a combination of items correlated to a

precedence relationship. However, Ausubel teaches conditions submitted by buyers as a part of their bids. Further, Macready teaches that the auction process cannot proceed until bidder conditions are fulfilled ([00340]-II. 3-4). Also, Applicant defines precedence constraints as available to both sellers and buyers (page 6, II. 4-18), simply as a previously established bid or offer, or a previously established condition, which has to be met if a newly submitted condition, bid or offer is to be accepted. An ordinary practitioner would have been familiar with such conditional offers and would have known that the conditional offers can be based on an unlimited number of factors, including previously submitted terms, conditions, offers or bids. Macready also discloses a method of enabling the auction system so that seller constraints specify a wide range of parameter possibilities. Macready further teaches combinations in offers and combinations of values ([0344] and in claim 64). An ordinary practitioner would have seen that such combinations of values could easily involve bids for multiple items conditioned in whatever manner suits the bidder if two or more items are offered by a seller or even by multiple sellers who are participating in the same auction. For example, in an auction of used car parts (an industry which has become quite sophisticated in the era of personal computers) it would be reasonable for a bidder to establish a bid for a front grill assembly for a certain year/model car conditioned on the preceding bid for the body of the same make/model car which he has determined has a smashed grill. It would have been obvious to an ordinary practitioner at the time of Applicant's invention to have combined the art of Ausubel with that of Macready and well known practices to be responsive to seller constraints such as a minimum value for a combination of items correlated to a precedence relationship, motivated by the desire to offer flexibility to all trading partners to locate win-win opportunities for all parties if they exist (Macready, page 2, [0012]-II. 7-9).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Siegfried Chencinski whose telephone number is (571)272-6792. The Examiner can normally be reached Monday through Friday, 9am to

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6pm. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Alexander Kalinowski, can be reached on (571) 272-6771.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

*Commissioner of Patents and Trademarks, Washington D.C. 20231*

or faxed to:

(571)273-8300 [Official communications; including After Final communications labeled "Box AF"]

(571) 273-6792 [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to the address found on the above USPTO web site in Alexandria, VA.

SEC

June 7, 2008

/Narayanswamy Subramanian/

Primary Examiner, Art Unit 3691